

IN THE CLAIMS

1. (Previously Presented) A process for producing a fire resistant polycarbonate sheet, comprising:

compounding an aqueous solution consisting of an organic flame retardant salt with a finished polycarbonate to form a fire resistant polycarbonate, wherein shear is applied during the compounding, and wherein the organic flame retardant salt has a formula:



wherein M is an alkali metal or an alkali earth metal, Y' and Y'' are an aryl radical of 1-2 aromatic rings or an aliphatic radical of 1-6 carbon atoms and may be the same or different, z is an integer between 0 or 1, n is an integer between 0 to 5, and w is an integer less than 6, wherein Y' and Y'' together must contain at least one aromatic ring to which the SO₃M group is attached; and

extruding the fire resistant polycarbonate into the fire resistant polycarbonate sheet, wherein a number of surface inclusions in the extruded fire resistant polycarbonate sheet is reduced about 100 percent compared to compounding the flame retardant salt in solid form with the polycarbonate.

2. (Currently Amended) The process according to Claim 1, wherein the organic flame retardant salt is selected from the group consisting of sodium or potassium perfluoromethylbutane sulphonate; sodium or potassium perfluoromethane sulphonate; sodium or potassium perfluoroethane sulphonate; sodium or potassium perfluoropropane sulphonate; sodium or potassium perfluorohexane sulphonate; ~~sodium or potassium perfluoroheptane sulphonate;~~ ~~sodium or potassium perfluoroethanesulphonate;~~ sodium or potassium perfluorobutane sulfonate; sodium or potassium diphenylsulfon-3-sulphonate; sodium or potassium dichlorobenzoate sulphonate; sodium or potassium trichlorobenzoate sulphonate; sodium or potassium tosylsulphonate; and combinations comprising at least one of the foregoing salts.

3. (Previously Presented) The process according to Claim 1, wherein the organic flame retardant salt is a sodium or potassium diphenylsulfon-3-sulphonate, or a combination comprising at least one of the foregoing salts.

4. (Canceled)

5. (Previously Presented) The process according to Claim 1, wherein the organic flame retardant salt is potassium diphenylsulfon-3-sulphonate.

6. (Canceled)

7. (Canceled)

8. (Previously Presented) The process according to Claim 1, wherein the fire resistant polycarbonate comprises about 0.001 to about 2.0 parts per hundred of the organic flame retardant salt on a weight basis.

9. (Previously Presented) The process according to Claim 1, wherein the fire resistant polycarbonate comprises about 0.01 to about 1.0 parts per hundred of the organic flame retardant salt on a weight basis.

10. (Previously Presented) The process according to Claim 1, wherein the fire resistant polycarbonate comprises about 0.03 to about 0.3 parts per hundred of the organic flame retardant salt on a weight basis.

11. (Original) The process according to Claim 1, further comprising compounding additives selected from the group consisting of a filler, a reinforcing agent, a heat stabilizer, an antioxidant, a light stabilizer, a plasticizer, an antistatic agent, a mold releasing agent, an additional resin, a blowing agent, and combinations comprising at least one of the foregoing additives.

12. (Previously Presented) The process according to Claim 1, wherein the organic flame retardant salt has a melting temperature greater than a compounding temperature for forming the fire resistant polycarbonate composition.

13. (Original) The process according to Claim 1, wherein the aqueous solution comprises water and an alcohol.

14. (Canceled)

15. (Canceled)

16. (Previously Presented) A process for reducing haze in a fire resistant polycarbonate sheet, comprising:

compounding an aqueous solution consisting of an organic flame retardant salt with a finished polycarbonate to form a fire resistant polycarbonate, wherein shear is applied during the compounding, and wherein the organic flame retardant salt has a formula:



wherein M is a an alkali metal or an alkali earth metal, Y' and Y'' are an aryl radical of 1-2 aromatic rings or an aliphatic radical of 1-6 carbon atoms and may be the same or different, z is an integer between 0 or 1, n is an integer between 0 to 5, and w is an integer less than 6, wherein Y' and Y'' together must contain at least one aromatic ring to which the SO₃M group is attached; and

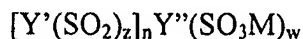
extruding the fire resistant polycarbonate into the fire resistant polycarbonate sheet, wherein a number of surface inclusions in the extruded fire resistant polycarbonate sheet is reduced about 100 percent compared to compounding the flame retardant salt in solid form with the polycarbonate, and wherein the haze is reduced compared to compounding the flame retardant salt in solid form with the polycarbonate.

17. (Currently Amended) The process according to Claim 16, wherein the flame retardant is selected from the group consisting of sodium or potassium perfluoromethylbutane sulphonate; sodium or potassium perfluoromethane sulphonate; sodium or potassium perfluoroethane sulphonate; sodium or potassium perfluoropropane sulphonate; sodium or potassium perfluorohexane sulphonate; ~~sodium or potassium perfluoroheptane sulphonate;~~
~~sodium or potassium perfluorooctanesulphonate;~~ sodium or potassium perfluorobutane sulfonate; sodium or potassium diphenylsulfon-3-sulphonate; sodium or potassium dichlorobenzoate sulphonate; sodium or potassium trichlorobenzoate sulphonate; sodium or potassium tosylsulphonate; and combinations comprising at least one of the foregoing salts.

18. (Original) The process according to Claim 16, wherein the aqueous solution comprises water and an alcohol.

19. (Previously Presented) A process for reducing color in a fire resistant polycarbonate sheet, comprising:

compounding an aqueous solution consisting of an organic flame retardant salt with a finished polycarbonate to form a fire resistant polycarbonate, wherein shear is applied during the compounding, and wherein the organic flame retardant salt has a formula:



wherein M is an alkali metal or an alkali earth metal, Y' and Y'' are an aryl radical of 1-2 aromatic rings or an aliphatic radical of 1-6 carbon atoms and may be the same or different, z is an integer between 0 or 1, n is an integer between 0 to 5, and w is an integer less than 6, wherein Y' and Y'' together must contain at least one aromatic ring to which the SO₃M group is attached;

applying a vacuum to at least one extruder vent port during the compounding; and

extruding the fire resistant polycarbonate into the fire resistant polycarbonate sheet, wherein a number of surface inclusions in the extruded fire resistant polycarbonate sheet is reduced about 100 percent compared to compounding the flame retardant salt in solid form with the polycarbonate, and wherein a yellowness index is reduced compared to compounding the flame retardant salt in solid form with the polycarbonate.

20. (Currently Amended) The process according to Claim 19, wherein the flame retardant is selected from the group consisting of sodium or potassium perfluoromethylbutane sulphonate; sodium or potassium perfluoromethane sulphonate; sodium or potassium perfluoroethane sulphonate; sodium or potassium perfluoropropane sulphonate; sodium or potassium perfluorohexane sulphonate; ~~sodium or potassium perfluoroheptane sulphonate;~~ ~~sodium or potassium perfluoroethanesulphonate;~~ sodium or potassium perfluorobutane sulfonate; sodium or potassium diphenylsulfon-3-sulphonate; sodium or potassium dichlorobenzoate sulphonate; sodium or potassium trichlorobenzoate sulphonate; sodium or potassium tosylsulphonate; and combinations comprising at least one of the foregoing salts.

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)